

**THIS PAGE IS INSERTED BY OIPE SCANNING  
AND IS NOT PART OF THE OFFICIAL RECORD**

### **Best Available Images**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

**BLACK BORDERS**

**TEXT CUT OFF AT TOP, BOTTOM OR SIDES**

**FADED TEXT**

**BLURRY OR ILLEGIBLE TEXT**

**SKEWED/SLANTED IMAGES**

**COLORED PHOTOS HAVE BEEN RENDERED INTO BLACK AND WHITE**

**VERY DARK BLACK AND WHITE PHOTOS**

**UNDECIPHERABLE GRAY SCALE DOCUMENTS**

**IMAGES ARE THE BEST AVAILABLE  
COPY. AS RESCANNING *WILL NOT*  
CORRECT IMAGES, PLEASE DO NOT  
REPORT THE IMAGES TO THE  
PROBLEM IMAGE BOX.**

# (12) UK Patent Application (19) GB (11) 2 297 961 (13) A

(43) Date of A Publication 21.08.1996

(21) Application No 9602836.0

(22) Date of Filing 13.02.1996

(30) Priority Data

(31) 9502776 (32) 14.02.1995 (33) GB

(71) Applicant(s)

The Silver Spring Mineral Water Company Limited

(Incorporated in the United Kingdom)

Park Farm, FOLKESTONE, Kent, CT19 5EA,  
United Kingdom

(72) Inventor(s)

Edward Bullen

Frank Richard Ludlow

(74) Agent and/or Address for Service

J Y & G W Johnson

Furnival House, 14-18 High Holborn, LONDON,  
WC1V 6DE, United Kingdom

(51) INT CL<sup>6</sup>

G09F 3/02

(52) UK CL (Edition O )

B8F FBG

U1S S1808

(56) Documents Cited

GB 1223359 A

GB 0380869 A

(58) Field of Search

UK CL (Edition O ) B8F FBG

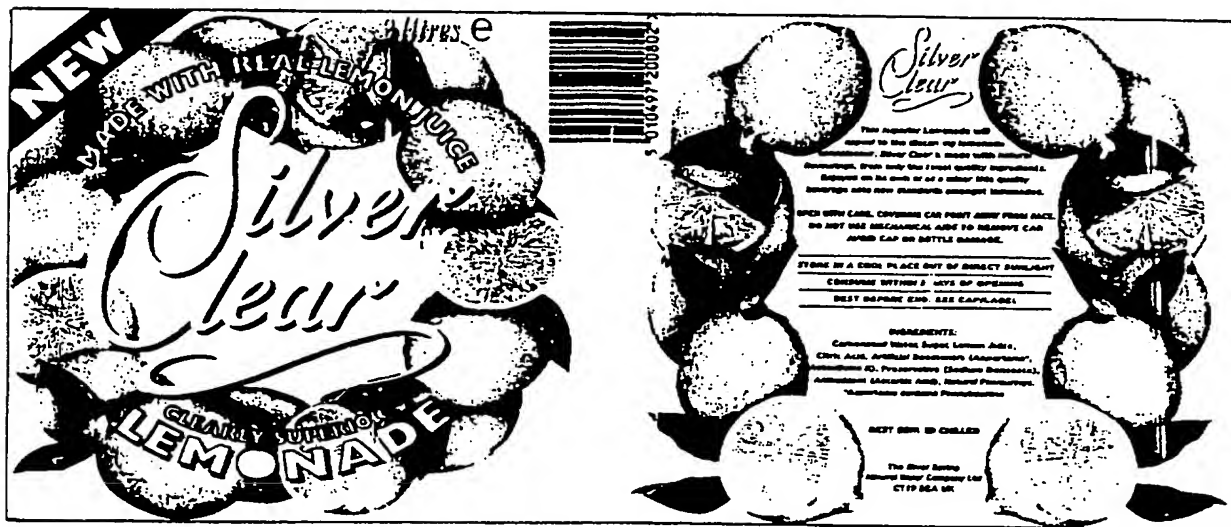
INT CL<sup>6</sup> G09F 3/02

ONLINE:WPI

## (54) Labelling of transparent containers

(57) A transparent container for a transparent liquid, for example a cylindrical lemonade bottle, is provided on its curved surface with a plastic wrap-around label. The back face of the label (the face in contact with the container) is provided with a pattern and the portion of the label contacting the opposite side of the container is at least partly transparent. The pattern is visible through the transparent portion of the label and the container and its liquid contents and is visibly modified by refraction when viewed from the opposite side of the container. The pattern may be provided on the label in a distorted form so that when viewed in refracted form it is distortion-free.

Fig. 1



GB 2 297 961 A

Fig. 1

**NEW**  
**MADE WITH REAL LEMON JUICE**

**Silver Clear**

**CLEARLY SUPERIOR LEMONADE**

5 010497 200802 K

This superior Lemonade will appeal to the discerning lemonade connoisseur. Silver Clear is made with natural flavourings, from only the finest quality ingredients. Enjoyed on its own or as a mixer this quality beverage sets new standards amongst lemonades.

OPEN WITH CARE. COVERING CAP POINT AWAY FROM FACE. DO NOT USE MECHANICAL AIDS TO REMOVE CAP. AVOID CAP OR BOTTLE DAMAGE.

STORE IN A COOL PLACE OUT OF DIRECT SUNLIGHT  
CONSUME WITHIN 3 DAYS OF OPENING  
BEST BEFORE END: SEE CAP/LABEL

**INGREDIENTS:**  
Carbonated Water, Sugar, Lemon Juice, Citric Acid, Artificial Sweeteners (Aspartame\*, Acesulfame K), Preservative (Sodium Benzoate), Antioxidant (Ascorbic Acid), Natural Flavourings. \*Aspartame contains Phenylalanine

**BEST SERVED CHILLED**

The Silver Spring  
Mineral Water Company Ltd  
CT 19 SEA LK

2/3

Fig. 2

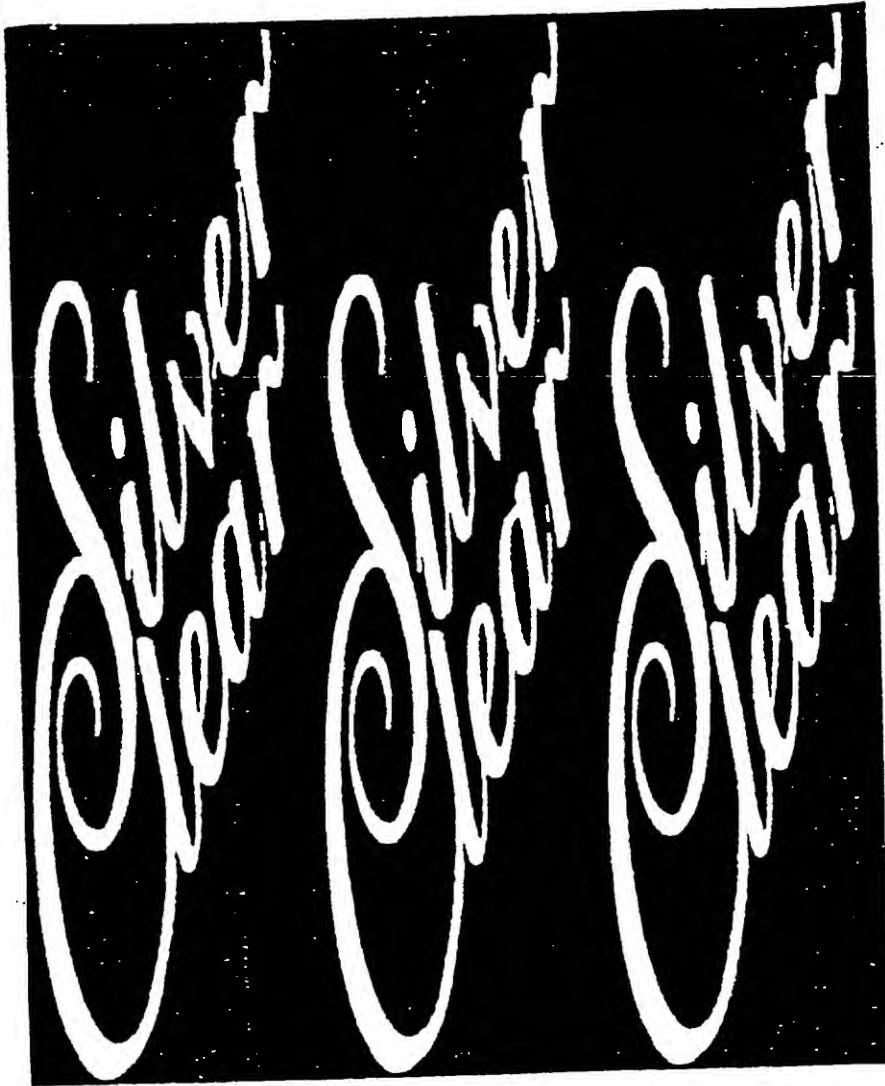


Fig. 3



Labelling of Transparent Containers

The present invention relates to the labelling of transparent containers for transparent liquids, such as transparent bottles for transparent drinkable liquids.

5       Conventional transparent bottles are generally cylindrical in shape with a neck portion tapering at the top to the liquid inlet/outlet closable with a closure cap. Conventionally such bottles are labelled with a label which is attached to a part of the cylindrical surface area of the  
10 bottle and bears information, designs, slogans etc. on the surface facing away from the bottle. These labels may be permanently fixed to the bottle or may be detachable, and it has been known to provide wording on the inside of detachable labels which is intended to be read when the  
15 label is detached from the bottle.

The present invention provides a novel labelling concept.

According to the present invention a transparent container for a transparent liquid has a curved surface and  
20 is provided on that surface with a plastic wrap-around label which has a pattern on its back face (the face in contact with the container surface) and which is at least partly transparent in its portion contacting the side of the container opposite the pattern, the pattern being visible  
25 through the transparent portion of the label and the container and its liquid contents and being visibly modified by refraction when viewed from the opposite side of the container.

The pattern on the back face of the label may be a  
30 distorted pattern which, when viewed through the container and contents from the opposite side, is so modified by refraction that it ceases to be distorted and a

refraction that it ceases to be distorted and a predetermined appearance is achieved. The modification by refraction occurs only in directions where the surface of the container is curved, so that for cylindrical containers  
5 there is no modification in the direction parallel to the axis of the cylinder.

The invention also includes a plastic wrap-around label for a curved surface of a transparent container for a transparent liquid, the label having a pattern on its back  
10 face (the face intended to be in contact with the surface of the container in use) and being at least partly transparent in its portion contacting the side of the container opposite the pattern in use, such that when the label positioned on the surface of the container is viewed from the opposite  
15 side of the container through the transparent liquid the pattern on the back face is visible and is modified by refraction.

The pattern on the label can be lettering or words or it can form a picture which may be representational or  
20 abstract and it can be repeated any suitable number of times, for example, 2, 3, 4 or 5 times, if desired. The pattern on the back face may contrast in colour or shade from the background of the back face, for example light on dark, e.g. white on blue, or dark on light. Alternatively  
25 the portion of the label having the pattern on its back surface may also be partly transparent, the pattern being additionally intended for direct viewing and being therefore symmetrical.

The wrap-around label may extend around the  
30 circumference of a cylindrical bottle. The pattern on the back face preferably extends only over a portion of the back face and the part of the label through which the patterned back face is to be viewed from the opposite side of the container may itself be patterned, for example in a way  
35 which complements the pattern on the back face.

The label may be a two-part label in which a transparent cover sheet (optionally containing some markings such as wording, lettering, slogans or designs) covers a non-transparent patterned sheet and the back face of the non-transparent sheet is provided with the pattern to be viewed through the container. The front face of the patterned sheet may also be provided with wording, patterns etc. intended for direct viewing.

The invention will now be described in more detail, by way of example, with reference to the accompanying drawings, in which

Figure 1 shows a label according to a first embodiment of the invention;

Figure 2 shows the patterned back face of a label according to a second embodiment of the invention and

Figure 3 shows the back face shown in Figure 2 as modified following refraction.

Figure 1 shows a wrap-around plastic label for a cylindrical plastic bottle of lemonade. The figure shows the front face of the label, which is partly transparent. Wording and pictures printed on the back face of the label can be viewed directly as shown. The pictures can also be viewed through the transparent parts of the label on the opposite side of the bottle and through the bottle and lemonade.

The label is affixed to the bottle by applying hot melt glue to the overlapping leading and trailing edges only, thus avoiding any distortion of the pattern by the glue.

Figure 2 shows the back face of the non-transparent sheet of an alternative two-part label. The non-transparent



sheet is located between the bottle and a transparent wrap-around sheet. The pattern on the back face, which comprises three repetitions of distorted wording, is viewed through the transparent sheet on the opposite side, the bottle and  
5 the lemonade. It is refracted by the latter and ceases to be distorted, appearing as shown in Figure 3.

Whilst specific embodiments of the invention have been described, it will be appreciated that modifications may be made thereto with departing from the scope of the invention.  
10 For example, the container need not be completely transparent; it is sufficient if it contains a transparent area opposite to the label bearing the pattern on its back face so that the back face of the label can be read through the transparent area from the opposite side of the  
15 container.

CLAIMS

1. A transparent container for a transparent liquid having a curved surface and provided on that surface with a plastic wrap-around label which has a pattern on its back face (the face in contact with the container surface) and is at least partly transparent in its portion contacting the side of the container opposite the pattern, the pattern being visible through the transparent portion of the label and the container and its liquid contents and being visibly modified by refraction when viewed from the opposite side of the container.

2. A container as claimed in claim 1 which is of cylindrical shape.

3. A plastic wrap-around label for a curved surface of a transparent container for a transparent liquid, the label having a pattern on its back face (the face intended to be in contact with the surface of the container in use) and being at least partly transparent in its portion contacting the side of the container opposite the pattern in use, such that when the label positioned on the surface of the container is viewed from the opposite side of the container through the transparent liquid the distorted pattern on the back face is visible and is modified by refraction.

4. A label as claimed in claim 3 wherein the part of the label through which the patterned back face is to be viewed is itself patterned.

5. A labelled container substantially as hereinbefore described.



Application No: GB 9602836.0  
Claims searched: 1-5

Examiner: Stephen Smith  
Date of search: 11 March 1996

**Patents Act 1977**  
**Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.O): B8F (FBG)

Int Cl (Ed.6): G09F 3/02

Other: ONLINE:WPI

**Documents considered to be relevant:**

Category	Identity of document and relevant passage		Relevant to claims
X,Y	GB 1223359	(UNILEVER) especially lines 106-110 of page 2 and lines 94-96 of page 3	X:1-3 Y:4, 5
Y	GB 380869	(DAVIES) especially lines 23-34 and 101-115 of page 2	4, 5

X Document indicating lack of novelty or inventive step  
Y Document indicating lack of inventive step if combined with one or more other documents of same category.

& Member of the same patent family

A Document indicating technological background and/or state of the art.  
P Document published on or after the declared priority date but before the filing date of this invention.

E Patent document published on or after, but with priority date earlier than, the filing date of this application.